



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

**IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE NUMBER USA/0501/S, REVISION 1**

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive materials.

1. Source Identification - Amersham Model X.44.
2. Source Description - The source approved by this certificate is a tungsten inert gas welded, single or double encapsulation constructed of Type 316 or 316L stainless steel. The outer capsule measures 26.7 mm (1.05") in length and has a diameter that tapers from 6.6 mm (0.26") to 2.54 mm (0.1"). If an inner capsule is used, it must be constructed of stainless steel, aluminium, or titanium. The entire source capsule must be constructed in accordance with Sentinel drawing no. R 87521 (attached).
3. Radioactive Contents - The source contains not more than 11 TBq (295 Ci) of solid metal Ir-192 or Co-60.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 209 of the IAEA regulations<sup>1</sup> shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires October 1, 2005.

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1 "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1985 Edition, as amended 1990", published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

2 Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

( - 2 - )

CERTIFICATE USA/0501/S, REVISION 1

This certificate is issued in accordance with paragraph 703 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated September 11, 2000 submitted by AEA Technology, Burlington, MA, and in consideration of other information on file in this Office.

Certified by:

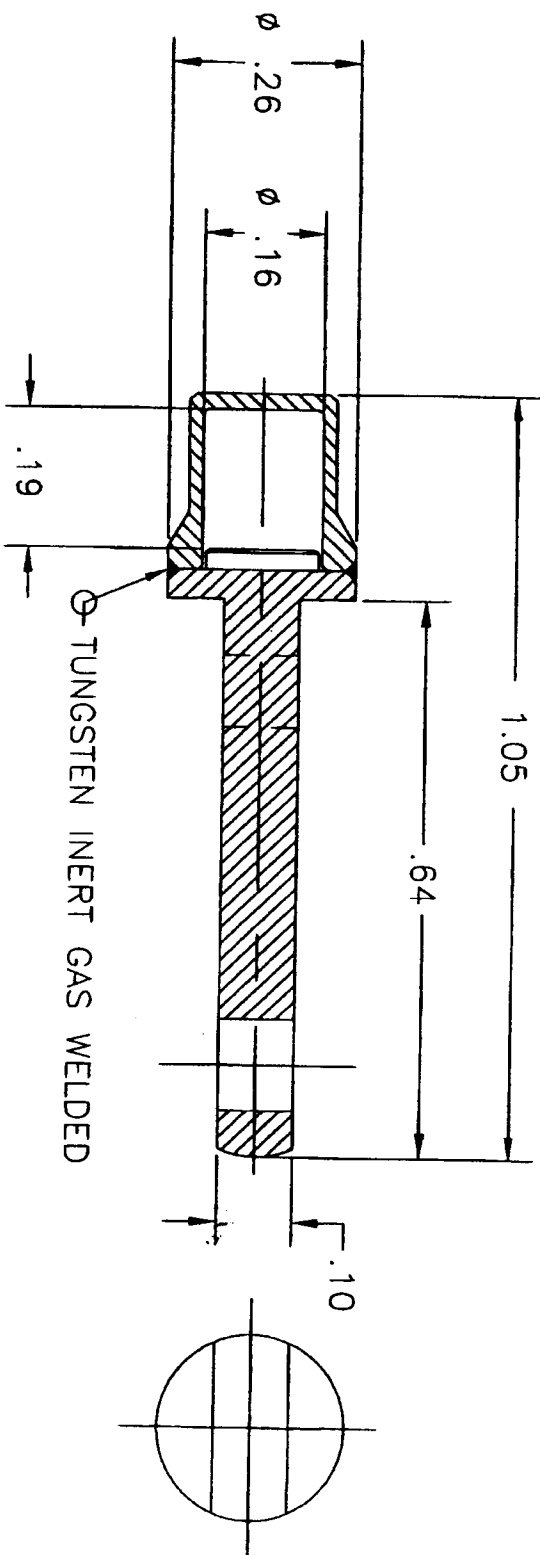
  
\_\_\_\_\_  
Robert A. McGuire

*AM* Associate Administrator for  
Hazardous Materials Safety

SEP 27 2000

\_\_\_\_\_  
(DATE)

Revision 1 - Issued to extend the expiration date.



Ø TUNGSTEN INERT GAS WELDED

# NOTES:

1. INTERNAL VOID TO BE 0.010 ML OR GREATER.
2. MATERIAL: 316L STAINLESS STEEL OR EQUIVALENT.
3. INNER CAVITY DIMENSIONS MAY VARY. METALLIC SPACERS, SPRINGS AND GUARDS WHICH SECURE AND/OR LOCATE THE RADIOACTIVE MATERIAL WITHIN THE CAPSULE MAY BE USED.
4. MINIMUM WALL THICKNESS TO BE 0.016.

UNLESS OTHERWISE SPECIFIED:

ALL DIMENSIONS ARE INCHES AND REFERENCE

**SENTINEL**

DESCRIPTIVE  
DRAWING

**Amersham Corporation**  
40 NORTH AVE. BURLINGTON, MA 01803

ADDED .64 & .10 DIMENSIONS

*S. Gamm*  
*C. A. Ayhan*

15 JAN 67  
3 AM 17

B

TITLE

X44 CAPSULE ASSEMBLY

DESCRIPTION

APPROVALS

DATE

LTR

SIZE

DWG. NO. R 87521

REV

REVISIONS

A

SCALE: NONE

SHEET 1

OF 1

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